Transposing the Energy Performance of Buildings Directive (EPBD) into Irish law:

Article 9.1 Minimum Energy Performance Standards (MEPS) in Non-Residential Buildings.

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IGBC
IRISH GREEN BUILDING COUNCIL

European Climate Foundation

RENOVATE EUROPE

Acknowledgments

The Irish Green Building Council (IGBC) would like to thank all the participants who attended and contributed to our workshop, as well as the draft reviewers. All participants are listed in the appendices of the report.

This document will be part of a series of factsheets to be developed by the IGBC on the transposition of the Energy Performance of Buildings Directive (EPBD) Recast 2024 (Directive (EU) 2024/1275) into Irish law. The IGBC will be hosting similar open invitation workshops focusing on other articles of the EPBD in 2025 and 2026 to support this process.

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Summary

EPBD Recast 2024

Aims to kick-start a renovation wave across Europe

Key Focus

Article 9.1 introduces **Minimum Energy Performance Standards (MEPS)** in **non-residential buildings**.

What is a Non-Residential Building?

A building primarily used or intended for non-residential purposes. If at least 50% of the overall useful floor area is used for residential purposes, the building is classified as a residential building.

MEPS in Non-Residential Buildings

STEP 1

Member States to:

- Gather data on the energy performance of the non-residential building stock as of 1 January 2020
- **Identify the 16% and 26% lowest performing buildings.**

STEP 2

By **2030, all buildings in the 16% batch must be improved.**

STEP 3

By **2033, all buildings in the 26% batch must be improved.**

STEP 4

By **2040, an additional nationally determined percentage of the non-residential building stock must be renovated to ensure it reaches ZEB standard by 2050.**

Recommended Approach

Short Term
2030 - 2033 MEPS

- **Use BERs as a base and couple it with statistical sampling** using metered energy performance of various building typologies.
- **Develop a national database of non-residential buildings** to include information on BER and actual energy use.

Medium Term
2040+ MEPS

- Use the asset and performance-based data compiled in the newly established national database to develop additional MEPS and achieve a fully decarbonised built environment by 2050.

Set-Up System Infrastructure
e.g., national database of non-residential buildings, incentivise data sharing on actual energy use

Supporting Actions

Technical & Financial Support
e.g., Renovation Passports, One-Stop-Shops for SMEs

Communication Tools
e.g., tailored communication campaigns run in partnership with trusted intermediaries (e.g., accountants and trade associations)

"Making energy renovations as straightforward as possible is crucial for driving adoption in the SME sector. MEPS will only be effective if introduced alongside the right technical and financial support mechanisms."

Geraldine A. Cusack
Sustainability & Climate Action Officer, Fáilte Ireland

"Commercial buildings account for a significant share of Ireland's total energy consumption. Accelerating the depth and pace of renovation in this sector is essential for achieving our climate and energy targets."

Clare O'Connor
Programme Coordinator, Friends of the Earth Ireland

"We cannot manage what we do not measure. Incentivizing and facilitating data sharing on actual energy use is crucial for tackling operational carbon emissions in non-residential buildings."

Archie O'Donnell
Senior Sustainability Specialist, KOMOS

"The new EPBD and MEPS are pivotal in driving the renovation wave necessary to decarbonise Ireland's building stock. When transposing the Directive into Irish law, it is crucial to ensure that MEPS deliver genuine carbon savings and do not lead to further dereliction or demolition."

Patrycja Kochaniuk
Sustainability Lead, Scott Tallon Walker Architects

"With the new Minimum Energy Performance Standards (MEPS) to improve the worst 16% of non-residential buildings required by 2030, there is an urgent need to prioritise awareness-raising and education within the built environment industry. Collaborating with other professionals and stakeholders on Climate Action is a key focus for the RIAI and our Members"

Gearóid Carvill
Climate Change Advisor, RIAI

"Clear and early guidance on MEPS would be welcomed by the industry. Both certainty and predictability are necessary to build confidence and drive investment in the sector."

Paul Kelly
Head of Sustainability, Real Estate Finance, AIB

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Introduction

Increases in investment in energy renovation in recent years have led to a significant reduction in carbon emissions associated with the built environment. Yet, the SEAI National Energy Projections 2024 show that Ireland is off track with its 2030 targets. Even with the full delivery of the Climate Action Plan (CAP), there are significant projected gaps in achieving all legally binding national and EU targets, including obligations on energy efficiency, renewable energy, and greenhouse gas emissions [1].

The Energy Performance of Buildings Directive (EPBD) is a cornerstone in European legislation and was developed to address energy consumption and reduce greenhouse gas (GHG) emissions associated with our built environment. In May 2024 The European Parliament and EU Council agreed on the revision of this important piece of legislation. The revision intends to help Europe achieve a fully decarbonized building stock by 2050. The 2024 recast contains a number of measures to encourage the renovation of existing buildings, with a focus on the currently worst-performing buildings. These include setting Minimum Energy Performance Standards (MEPS) in non-residential buildings and introducing mechanisms to ensure compliance at the building level.

Ireland and other Member States have until May 2026 to transpose the provisions of the updated EPBD.

[1] *EAI National Energy Projections 2024* *National-Energy-Projections-Report-2024.pdf*

About the EPBD

In March 2024, the European Parliament approved the new Energy Performance of Buildings Directive (EU 2024/1275). The directive sets a clear direction for the full decarbonisation of the European building stock by 2050, with clear goals and tools to achieve that vision, including strengthened provisions for energy renovation.

To kick-start a renovation wave across the continent, the directive requires member states to develop national building renovation plan (art. 3), and to introduce Minimum Energy Performance Standards (see next section) as well as voluntary renovation passports (art. 12), alongside financial and technical support for deep renovation (art. 17). Other measures include a solar mandate that aims to increase the number of buildings that produce solar power, the phasing out of all fossil fuel boilers by 2040, and greater focus on indoor environmental quality in buildings.

The new EPBD also stipulates that from 2030, all new buildings must be Zero Emission Buildings (ZEBs), which must not produce any emissions on-site and must run on a very small amount of energy, such as renewables or district heating where feasible. For the first time, the directive also requires member states to regulate the life-cycle global warming potential of buildings. Starting in 2030, the life-cycle global warming potential must be measured for all new buildings, and for larger buildings (useful floor area larger than 1 000 m^2) from 2028. This marks a significant shift in focus in Ireland as current building regulations address operational carbon only.

About MEPS in Non-Residential Buildings: Art. 9.1

To gradually improve the energy efficiency of existing non-residential buildings, the EPBD 2024 Recast requires member states to introduce Minimum Energy Performance Standards (MEPS).

Under art. 2 of the EPBD 2024 Recast, MEPS mean “rules that require existing buildings to meet an energy performance requirement as part of a wide renovation plan for a building stock or at a trigger point on the market (such as sale, rent, donation or change of purpose within the cadastre or land registry), in a period of time or by a specific date, thereby triggering renovation of existing buildings.”

The new EPBD sets mandatory objectives to improve the least energy-efficient sections of the European non-residential building stock through MEPS, while member states should establish national trajectories for the progressive renovation of the national residential building stock [2].

MEPS in Non-Residential Buildings

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STEP 2

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The full text of article 9.1 is available in the appendices of this report.

About the Process

The Irish Green Building Council (IGBC), with the support of the Department of Housing, Local Government and Heritage (DHLGH) and the Sustainable Energy Authority of Ireland (SEAI) organised a workshop, on September 24th, 2024, to help inform the transposition of the EPBD 2024 Recast (2024/1275) into Irish law. The workshop began discussions on how the implementation of the revised EPBD can support deeper renovation at scale, with a strong focus on minimum energy performance standards (MEPS) in non-residential buildings (Art. 9.1) as a key instrument.

The decision was made to focus on MEPS in non-residential buildings following a meeting with representatives from government. This included representatives from DHLGH who are responsible for the coordination of the transposition, as well as the Department of Enterprise, Trade and Employment (DETE) who are looking at Article 9.1, and the Department of Environment, Climate and Communications (DECC), who are also examining Art 9.1 and leading on Article 9.2, establishing a national trajectory for the progressive renovation of the residential building stock, and Ireland’s Climate Action Plan. It was decided that it would be more beneficial to focus on article 9.1 rather than other articles at this moment in time.

The workshop brought together over 30 key stakeholders from governments and local authorities, energy agencies, construction companies, research and academia, and NGOs – These are listed in the Appendices section of this report.

The purpose of the workshop was to help participants gain a better understanding of the new EPBD requirements, specifically Article 9.1, and how these might impact them. It also allowed for the first discussions on how MEPS for non-residential buildings could apply in Ireland by exploring different approaches that could be used to identify the lowest-performing buildings in the building stock, whilst also focusing on specific actions needed to support its implementation. The workshop was designed to ensure the broadest engagement in the development of the recommendations and maximised the potential for creative input.

[2] *For further information on the new requirements relating to residential buildings, please see World Green Building Council’s factsheet - Minimum Energy Performance Standards and renovation trajectories in the Energy Performance of Buildings Directive.*

The table below outlines the overall process undertaken during the development of the recommendations.

Step 1

Understanding National Renovation Developments

- Desk research into renovation developments in Ireland.
- Development of 3 documents as a basis of common understanding - Links available in the Useful Resources Section in Appendices:
  1. Building Renovation in Ireland - Legislative Developments.
  2. Energy Renovation in Ireland: Main challenges & Proposed renovation pathways.
  3. Societal & economic benefits to energy renovation.
- Stakeholder mapping exercise.

Step 2

Understanding the Requirements of the EPBD 2024 Recast & the Transposition Process

- Throughout analysis of the text of the EPBD 2024 Recast.
- Calls with Renovate Europe Campaign & National Partners.
- Meeting with key stakeholders from government departments to help the IGBC better understand the role of various departments/ agencies in the transposition of the EPBD and ensure the content of the workshop effectively supports the transposition process.

Step 3

Designing & Delivering an Impactful Workshop to support Deep Renovation at Scale

- Meeting with other Renovate Europe Campaign National Partners to share ideas and best practices.
- September 24: Workshop organised in conjunction with DHLGH and SEAI to inform the implementation of MEPS in Ireland. Objectives:
  1. Ensuring workshop participants gained a clearer understanding of art. 9.1, and how it might impact them.
  2. Starting the discussion on how MEPS for non-residential buildings could apply in Ireland.

Step 4

Towards a successful implementation of Art. 9.1

- October 24: First draft of the recommendations developed (based on workshop findings) and circulated to key stakeholders.
- November 24: Follow up meetings with industry and public sector representatives to discuss key findings (draft 1) and next steps.
- December 24: Additional feedback incorporated into the final version of the document.

Recommendations

Background information

In May 2024 the The European Parliament and EU Council agreed on the revision to the EU's primary law governing the sustainability of buildings, the EPBD. The intention of the revision is to help Europe achieve a fully decarbonised building stock by 2050, contributing to the EU's wider target of climate neutrality by the same year.

The update contains many measures to encourage the renovation of existing buildings, with a focus on the worst-performing part of the stock. These include introducing Minimum Energy Performance Standards (MEPS) in non-residential buildings (Art. 9.1). The workshop provided an in-depth discussion into how this article could work in Ireland.

[3] *Under Art. 9.1 of the EPBD, "the maximum energy performance thresholds shall be established on the basis of the non-residential building stock on 1 January 2020, based on available information and, where appropriate, on statistical sampling".*

MEPS in Non-Residential Buildings

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Challenges

Several challenges were identified regarding the implementation of MEPS in non-residential buildings.

These included the scale of the issue—the renovation rate of commercial buildings in Ireland remains low—and the tight timeframe for implementation. The lack of accurate, readily available data on the energy performance of non-residential buildings as of 1 January 2020[3] also presents a significant challenge. BERs are only required for new buildings or those being rented out, meaning the database is not representative of all the non-residential building stock. Furthermore, because BERs are asset-based rather than performance-based, it is difficult to pinpoint the worst-performing buildings regarding operational use. Additional challenges include insufficient technical and financial support for the energy renovation of non-residential buildings, limited awareness of forthcoming MEPS, and a lack of understanding about the broader benefits of energy renovation among commercial building owners and SMEs.

Defining the worst part of the stock

Several approaches for identifying the worst-performing buildings were explored during the workshop. These included using Building Energy Rating (BER) certificates, statistical sampling, metered energy, or a combination of BER and actual energy use. Although identifying the perfect approach proved challenging, with each option presenting its difficulties, the consensus was to combine multiple methods for better accuracy.

Since the EPBD requires the energy performance threshold to be based on the non-residential building stock as of 1 January 2020, it is suggested to use BER certificates as a baseline, complemented by statistical sampling of the building stock across various typologies, using metered energy consumption. While this provides the best short-term solution to ensure Ireland meets the EPBD requirements, developing more accurate open-source data on the energy performance of the non-residential building stock must be a priority to avoid unintended consequences.

More specifically, it is recommended to make BERs mandatory (within a short timeline) for all non-residential buildings, and to facilitate and incentivize the collection and exchange of data on actual energy use—potentially through the introduction of a Display Energy Certificate (DEC) or similar for all non-residential buildings. Additionally, creating a detailed and comprehensive database of the entire stock should be prioritized. These steps must be taken urgently to mitigate uncertainties in the industry and among building owners, and to set meaningful additional MEPS for 2040, as required under the EPBD 2024 Recast.

Recommended Approach

Short Term
2030 - 2033 MEPS

- **Use BERs as a base and couple it with statistical sampling** using metered energy performance of various building typologies.
- **Develop a national database of non-residential buildings** to include information on BER and actual energy use.

Medium Term
2040+ MEPS

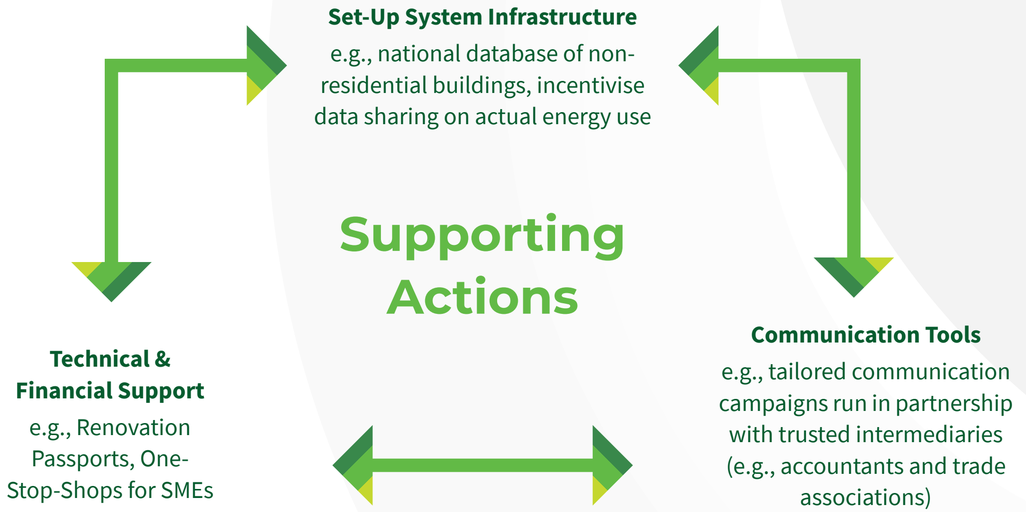
- Use the asset and performance-based data compiled in the newly established national database to develop additional MEPS and achieve a fully decarbonised built environment by 2050.

Supporting actions

To ensure the successful implementation of Article 9.1 in Ireland, leading to real emission reductions without placing SMEs in financial or technical difficulty, supporting mechanisms must be introduced. This report recommends the introduction of appropriate technical and financial support, alongside improved communication about MEPS and the benefits of energy renovation for non-residential building owners, with a particular focus on SMEs.

These actions are summarised below, but the findings of the following projects should also inform this discussion:

- The SEAI funded ENACT project is tasked with enabling commercial renovation through the development of decision-making tools, training and guidance documents, as well as policy recommendations
- A Renovation Passport template for non-residential buildings is currently being developed and piloted by the IGBC, IES, and CTSB, with support from SEAI.
- Art. 12 provides for the introduction of a scheme for renovation passports based on a common framework included at Annex VIII of the Directive.
- A DEC Pilot is ongoing as part of the #BuildingLife Initiative. This aims at testing the DEC methodology on several commercial office buildings in Ireland to see if it could be used in all non-residential buildings (and not only public buildings) to reduce carbon emissions from this sector.



Setting up the right framework

Develop an **open-source national database of all non-residential buildings**, to capture comprehensive data on the building stock	Government
Introduce **mandatory BER certs** for all non-residential properties – and gradually complement it with mandatory annually updated DEC (or similar) to improve performance and the quality of data	Government
Incentivise data sharing, including between occupiers and owners (e.g., through greater use of green leases and other supporting actions)	Government
Develop **high-quality GIS maps** to identify areas that are underperforming and actively prioritize them (this should also support economy of scale)	Government
Consider developing a **specific approach to traditionally built buildings** to avoid any unintended consequences	Government

Technical and financial support

Ensure **appropriate technical support** is widely available. E.g., Introduce One-Stop-Shops made up of independent advisors dedicated to SMEs and/or specific sectors	Government
Build upon existing SEAI grants for businesses, and review them regularly to further support SMEs - e.g., consider supporting the introduction of low-cost loans for SMEs, and alternative funding models	Government / Financial Institutions
Address the split incentive challenges through an increase in the use of green leases (e.g., update the Landlord and Tenant (amendment) Act 1980 to incorporate green clauses as a basic provision) and by facilitating data sharing and split metering.	Government (in consultation with industry)
Introduce tools to **support phased renovation** and ensure they do not lead to unintended consequences e.g., Renovation passports linked to MEPS	Government

Communication tools

Develop a **tailored communication campaign** to inform commercial building owners and businesses of the timeline of changes, triggers for upgrades, additional benefits of energy renovation, and support mechanisms in place.	Professional Bodies, Trade Association (in partnership with Government)
Identify the right messengers for each segment of the industry and collaborate actively with them - e.g., accountants, and trade associations.	Professional Bodies, Trade Association (in partnership with Government)
Promote change by **showcasing existing case studies** to encourage others to carry out similar works	Industry
Develop **high-quality GIS maps** to identify areas that are underperforming and actively prioritize them (this should also support economy of scale)	Government
Consider developing a **specific approach to traditionally built buildings** to avoid any unintended consequences	Government

Detailed workshop findings

A workshop on the transposition of Art. 9.1 of the EPBD 2024 Recast into Irish law was organised by the IGBC in partnership with DHLGH and SEAI on September 24th, 2024.

To ensure the greatest involvement from all stakeholders and create meaningful discussions, participants were divided into 5 groups, maintaining an even spread of different sector representatives across all tables – A full list of workshop participants is provided in the appendices.

The workshop began with three presentations, to provide all participants with the necessary background to the project and the revision of the EPBD.

- The IGBC gave an overview of the project, and the work completed to that date. The presentation also included a brief update on energy renovation in non-residential buildings in Ireland.
- The Department of Housing, Local Government and Heritage, gave an overview of the EPBD Recast and the transposition process.
- SEAI, informed participants on Article 9.1, including challenges, barriers, and other relevant material.

A PDF version of all the presentations given that day is available here.

Following the presentations, the groups participated in 3 separate sessions, all with an aim to understand how we can identify the worst-performing buildings and successfully implement MEPS in Ireland. The sessions were as follows:

1. Defining the worst part of the stock
2. Exploring various approaches to identifying the worst-performing buildings
3. Supporting implementation

The following information outlines the key discussions and takeaways that came out of each session.

Defining the worst part of the non-residential building stock

While the option to base the identification of the worst-performing buildings on BER certificates was mentioned frequently throughout the session, concerns were raised across all groups about the issues associated with non-residential BERs and the potential risks of using them as the sole measurement.

Currently, of the 210,000 non-residential buildings in Ireland , only 75,000 have a BER certificate, creating issues with data accuracy and making the database unrepresentative. Additional challenges arise from overlapping BERs for different parts of a building. As a result, the possibility of introducing mandatory BER certificates for all non-residential properties was extensively discussed. Although this process would be challenging, it was considered crucial for enforcing the uptake of BERs, gaining a clearer understanding of the existing stock, and identifying the worst-performing buildings. Beyond BERs, participants emphasized the need for better data on actual energy use, such as through a broader implementation of Display Energy Certificates (DECs) with annual updates. In addition, non-residential BERs do not reflect a building's operational carbon emissions, and relying solely on them for MEPS could result in unintended consequences.

Key findings from this session:

- BERs are the best available data for 1 January 2020 and are useful for identifying the worst-performing buildings within the stock.
- However, they are imperfect: they do not fully reflect actual operational carbon emissions, and the 2020 database is not fully representative of the non-residential building stock.
- In the short term, a combination of BER data, statistical sampling based on building typologies, and actual energy use (adjusted for weather conditions and occupancy density) could effectively identify the worst-performing buildings.
- To improve data quality, it was suggested to make BERs mandatory for all non-residential buildings, facilitate the collection and sharing of data on actual energy use, and develop a comprehensive open-source national database of all non-residential buildings. These actions are crucial for setting meaningful MEPS for 2040 and for evaluating their impact effectively.
- Given the EPBD timeline, there is an urgent need for better communication about MEPS, the scale of the challenge, and the benefits of energy renovation.
- For traditionally built buildings, a specific approach may be needed if BERs are used to establish the first MEPS. These buildings may appear less efficient than they actually are and could face inappropriate retrofits unless the right supporting mechanisms are in place.
- Data sharing between occupiers and owners must be incentivized and facilitated (e.g., through expanded use of green leases) to support the accurate identification of the energy performance of individual units within a building.
- To support large-scale energy renovation and carbon emission reductions, high-quality GIS maps should be developed at the local authority level to identify underperforming areas and prioritize them for action.

Exploring the most suitable approach

Based on the findings from Session 1, each group selected an approach to identify the worst-performing part of the building stock and explored it in greater detail. The approaches discussed included using BERs alone, statistical sampling, metered energy, and combining BER data with actual energy use.

As they worked on each specific approach, participants considered its benefits, potential risks, challenges, and unintended consequences, as well as the actions required to address these issues. This process allowed for a more in-depth discussion of each approach and provided a more comprehensive understanding of the ideas generated during Session 1.

The key findings from this session are summarised on page 14.

Option 1: Use of BERs to inform MEPS

BENEFITS

- Information is readily available for the 2020 baseline year.
- Information is reliable and consistent.
- A cost-effective approach.
- Ireland already have the experts (BER assessors) in place to develop more.

CHALLENGES & (POTENTIAL) UNINTENDED CONSEQUENCES

- The database might not be fully representative. A BER is only required for new buildings or where a building is being rented out. Buildings without a BER are likely to be in the worst-performing category, meaning that targeting these buildings might be challenging.
- There are overlaps in BERs in non-residential buildings, and data quality might be an issue.
- Non-residential BERs are not fully representative of actual energy use/ operational carbon emissions.
- Basing MEPS on BERs could present challenges in terms of the sequencing of works and create lock-ins. There is a risk that owners may only do the bare minimum required to meet a specific energy category if they cannot foresee future requirements (such as additional MEPS) and if the necessary supporting mechanisms are not in place.
- As BERs do not fully reflect the energy performance of traditionally built buildings, this approach could lead to unintended consequences for this part of the market, esp. if they are not introduced alongside the right technical support mechanisms.
- As embodied carbon emissions are not taken into account as part of BERs, this could lead to demolition/ dereliction resulting in higher embodied carbon emissions.
- Issues around the split incentive in rented non-residential buildings.

ADDRESSING THESE CHALLENGES (SUPPORTING ACTIONS)

- Consider making BER certs mandatory for all non-residential buildings.
- Create a comprehensive comms plan to inform building owners and businesses of what needs to be done and support available.
- Introduce tailored one-stop-shops to help non-residential building owners with specific actions, in particular SMEs.
- Address labour and skill shortages by incentivising upskilling and attracting new people to the industry.

Option 2: Use of Statistical Sampling to inform MEPS

BENEFITS

- The scoring of energy use would be more representative.
- A lot of data is readily available which could allow for multiple focuses.
- As capturing this data is increasingly driven by ESG more and more of it will become available.

CHALLENGES & (POTENTIAL) UNINTENDED CONSEQUENCES

- There are loopholes in collecting and logging data.
- There is a lack of consistency with how the information is captured.
- Mapping where the key data sets are is challenging.
- BIM information can be hard to capture – need to pay for extra software.
- If embodied carbon is not taken into account, this could lead to demolition/ dereliction, resulting in higher embodied carbon emissions.

ADDRESSING THESE CHALLENGES (SUPPORTING ACTIONS)

- Develop a methodology and a toolkit for commercial building owners to ensure actual performance is measured consistently. E.g., using DECs or NABERS [5].
- Combine multiple approaches – e.g., BER/Bills/BMS, and support the development of additional, reliable software to facilitate this.

[5] *NABERS-UK Design for Performance (DfP) is a process that enables developers or owners to commit to designing, building, and commissioning new office developments or major refurbishments to meet a specific NABERS Energy rating. This approach aims to bridge the 'performance gap' between the original design intent and the actual performance of buildings in use.*

Option 3: Use of Metered energy to inform MEPS

BENEFITS

- It is performance-based, and a true benchmark of actual energy use.
- It offers dual benefits to energy efficiency and carbon – It directly relates to carbon targets.
- It would ensure owners focus on upgrades that deliver savings.
- It's tied to actual costs (finances and paybacks).
- It would remove risks associated with "bad user behaviour".
- It was perceived by this group as easy, and a cost-effective way to address carbon emissions.

CHALLENGES & (POTENTIAL) UNINTENDED CONSEQUENCES

- Data access and data ownership.
- There are various sources producing data which could result in a lack of consistency (ESB/GNI).
- Risks of different occupiers and different energy use e.g. shopping centres.
- Risk of data loss if this is not captured in a centralised place.
- Question over the high rate of vacancy in non-residential buildings in Ireland and how this is covered as part of MEPS [6].
- Can all these issues around data be addressed quickly enough (and at scale) to comply with the requirements of the directive?
- This could lead to further demolition / dereliction, resulting in higher embodied carbon emissions.
- Issues around the split incentives in rented non-residential buildings would need to be addressed.

ADDRESSING THESE CHALLENGES (SUPPORTING ACTIONS)

- Consider mandating data reporting in a consistent format.
- Facilitate access to relevant data. E.g., via electricity and gas networks.
- Tie MPRN/ GPRN to Eircode.
- Incentivise data sharing, possibly through grants, financial incentives and/or green clauses [7].
- Consider combining the BER with a greater use of metered energy. E.g., through DECs.

Option 4: Combining BER & actual energy use to inform MEPS

BENEFITS

- The information is already built up with a standardised measurement process in place.
- This would help in making it independent of building operation.
- It stays in the EPBD legislative structures.
- It's an opportunity for continued improvement, including with training through the upskilling of existing BER assessors.

CHALLENGES & (POTENTIAL) UNINTENDED CONSEQUENCES

- Benchmarking and setting targets could be difficult as there are so many factors in usage.
- Analysing and consolidating the data (including getting BERs for unregistered buildings, and benchmarking performance/ factoring for all usage) in a short timeframe could bechallenging.
- Question over the high rate of vacancy in non-residential buildings in Ireland and how this is covered as part of MEPS.
- If the methodology is only working off m2, less energy intensive buildings may be prioritised due to their overall size.
- Since the approach doesn't consider embodied carbon / required renovations, it could lead to further demolition/ dereliction.

ADDRESSING THESE CHALLENGES (SUPPORTING ACTIONS)

- Develop and implement a framework to measure and report data.
- Require BERs for all non-residential buildings.

[6] *CTCHC land use surveys (Step 2 of a 15 - Step assessment process) highlight that the ground floor commercial vacancy rate in towns in Ireland is 18 to 31% – the normal target at a European level is 5%. The upper floors in towns are at c. 80% - both these levels are unheard of in a European context. CTCHC Programme, June 2022*

[7] *This may require updating the landlord and tenant (amendment) act 1980 to incorporate green clauses as a basic provision.*

Supporting actions

The final session of the workshop focused on how to best support implementation. The following questions were proposed to all participants:

- How should MEPS be implemented in non-residential buildings in Ireland?
- How can we improve communication to drive change?
- Who are we trying to communicate with? Financial institutions, owners, occupiers, estate agents, anyone else?
- What are the financial and technical supports that may be needed?

Setting up the right framework

The conclusions of the discussions highlighted several key areas that must be addressed to ensure the successful implementation of MEPS in Ireland. First, it emphasized the need for a balanced 'carrot and stick' approach to encourage investment in energy renovation.

To create a comprehensive database of non-residential buildings with basic energy use information in a short timeframe, it was suggested to incentivize building owners to complete a simple survey about their property, allowing all buildings to be registered in one system. It was proposed that this process be free before a specific deadline or offer a discount on energy bills for timely submissions, with a fee applied for assessments after that date. This could then be followed by the issuance of full BERs and/or data on actual energy use, depending on requirements. Since Renovation Passports must be introduced under the EPBD, these should be linked to them too.

Technical & Financial Support

There was an overall understanding that building owners, particularly those that own smaller businesses, would need an increase in both technical and financial support.

Energy renovation is not a priority for most SMEs[8], and the process, **including the application for grants, is perceived as complicated and difficult to navigate**. **Oftentimes, they don't have the time or resources to dedicate to understanding all the different regulations and applying for different funding schemes**. Consequently, there needs to be specific supports in place that can inform them (see section on communication tools) and help them along the journey.

The table on the right summarises possible supports that could be introduced as part of the implementation process of MEPS in Ireland.

Link MEPS to the introduction of renovation passports, as well as technical and financial support to avoid lock-ins and unintended consequences.
Pilot a sector-specific One-Stop-Shop dedicated to providing tailored support to specific parts of the market. E.g., SMEs, hospitality sector.
Develop a national database of non-residential buildings, allowing owners without BER to register their buildings, leading overtime to mandatory registration of buildings, with information on BERs and actual energy use (annual DECs) – This could be linked to renovation passports.
Provide early and absolute clarity on MEPS requirements, including different triggers for upgrades e.g., when selling, renting. See next section for further information.
Review existing financial support mechanisms on a regular basis to ensure they deliver real whole life carbon savings and consider introducing additional support mechanisms for small building owners where payback on investment is limited. E.g., low interest loans.
Support a greater use of green leases to facilitate data sharing and address the split incentive challenges in the rental market. E.g., Consider updating the Landlord and Tenant (amendment) Act 1980 to incorporate green clauses as a basic provision.
Develop a comprehensive communication strategy, as well as additional education and awareness-raising actions on energy renovation and systems, and the available pathways to improvement. This could be supported by SEAI, in partnership with relevant representative bodies. E.g., ISME, Tourism Ireland.

[8] *Findings from the SEAI funded ENACT project found that SMEs often have competing priorities with capital spending being allocated in priority to core business operations – delaying energy efficiency projects.*

Communication tools

There is a need for better communication, **not only between occupiers and owners, but between Government and building owners and businesses (including SMEs) to explain the energy savings that come with improving the efficiency of buildings, the co-benefits of energy renovation, as well as new legislative developments**. Many businesses and building owners, in particular SMEs, lack the awareness and clear understanding of MEPS and how it can benefit them. Improving communication on long-term cost savings, and co-benefits of energy renovation, such as increases in property value, while also providing the necessary guidance on technical specifications and compliance deadlines, will be key in improving the overall uptake and compliance.

Possible ways that communication could be improved are mentioned below.

Develop a comprehensive communication campaign to inform businesses about the timeline for changes, the benefits, and the supporting mechanisms available.

This campaign should be tailored to specific sectors and could be supported by trade associations and accountants, acting as 'trusted intermediaries' who engage with small businesses regularly. In addition to sector-specific messaging, the campaign should provide distinct types of information for owners (e.g., focusing on increased property value) and occupiers (e.g., emphasizing reduced energy bills).

Provide tailored information and guidance to building owners that is sector-specific. This could be done in partnership with trade-association and representative bodies.

Use trade events to communicate on MEPS and support mechanisms in place, and showcase existing case studies, encouraging others to carry out similar works.

Conclusion

In recent years, there has been an increased urgency in Ireland to address climate change and begin to transition towards a more sustainable built environment. Ireland's Climate Action Plan sets out a series of milestones to reach the climate target of net-zero greenhouse gas emissions no later than 2050, and a reduction of 51% of greenhouse gases by 2030. With building-related emissions being directly responsible for 37% of Ireland's overall carbon emissions and 23% of these emissions coming from the operation of buildings (IGBC, 2022), it becomes imperative that they are addressed, and the rate of energy renovation is scaled up. By upgrading existing buildings to improve energy efficiency and reduce the reliance on fossil fuels, we can significantly curb building-related emissions.

Current measures outlined in the EPBD require member states to establish MEPS for non-residential buildings and ensure the mechanisms are in place to support compliance at the building level. This report outlines realistic and comprehensive recommendations for Government to ensure a successful implementation of MEPS that provides additionality and supports a just transition. It is recognised that, in order to be effective, multiple financial and technical measures will need to be introduced alongside MEPS systems. More specifically, any minimum standards should be based on accurate data, regularly assessed and complemented by regular information campaigns, appropriate incentives and technical support, as well as effective enforcement. This is critical in ensuring the standards achieve the desired effects and prevent negative impacts on people or buildings.

Although these recommendations were developed through extensive desk research and consultation with key stakeholders, further research is needed to establish MEPS that deliver real whole life carbon savings. Given the EPBD timeline – first MEPS to be introduced in 2030, and the need for certainty and predictability to drive investment, this is urgent. A first step could be to organize workshops with representatives of other European countries who have already implemented MEPS to learn from their experience (and mistakes), and discuss how impactful MEPS could be introduced in Ireland.

Appendices

Workshop Participants

- AIB
- Bank of Ireland
- Bord Gais
- Carrig Energy Consultancy
- CBRE
- Cundall
- Department of Environment, Climate and Communications
- Department of Enterprise Trade and Employment
- Department of Housing Local Government and Heritage
- Dublin City Council
- Energy Elephant
- Failte Ireland
- Friends of the Earth
- Jacobs
- Kennedy Wilson
- KORE Retrofit
- Kosmos
- KSN Horizon
- OPN Buildings
- OPW
- Reddy Architecture
- Reverve Energy
- RIAI
- Savills
- Scott Tallon Walker Architects
- SEAI
- Shannon Airport Group

As part of the final questions posed to the participants, they were asked who should have been involved in the workshop.
The following table provides a list of key stakeholders that should be included in future discussions on MEPS.

- Accountants Networks (Advising/auditing, etc.)
- Agents/property managers
- BER Assessors
- Central Statistics Office (CSO)
- Construction Industry Representatives
- Contractors
- Owner representatives
- Sector-specific building owners
- SMEs from various sectors, including “struggling” businesses
- Utility companies, including Electricity Supply Board (ESB) and Gas Networks Ireland (GNI)

Acronyms

BER
Building Energy Rating

BIM
Building Information Modelling

BMS
Building Management System

CAP
Climate Action Plan

CSO
Central Statistics Office

CTCHC
Collaborative Town Centre Health Check Programme

DHLGH
Department of Housing Local Government and Heritage

DEC
Display Energy Certificate

DECC
Department of Environment, Climate and Communication

DETE
Department of Enterprise, Trade and Employment

EPBD
Energy Performance of Buildings Directive

ESB
The Electricity Supply Board

ESG
Environmental, Social, and Governance

GHG
Greenhouse Gas Emissions

GIS
Geographic Information System

GNI
Gas Networks Ireland

GPRN
Gas Point Registration Number

GWP
Global Warming Potential

IGBC
Irish Green Building Council

MEPS
Minimum Energy Performance Standards

MPRN
Meter Point Reference Number

NGO
Non-Governmental Organisation

SEAI
Sustainable Energy Authority of Ireland

SME
Small and Medium sized Enterprises

WLC
Whole Life Carbon

ZEB
Zero-Emission Building

Definitions

Building Energy Rating (BER)

Known under EU law as Energy Performance Certificates (EPC).

Built Environment

Ranges from the scale of the individual building to neighbourhoods, communities, and cities with their associated infrastructure.

Decarbonisation

The process of reducing carbon dioxide (and other greenhouse gas) emissions into the atmosphere. Climate neutrality is the goal of the decarbonisation process, i.e., achieving zero net greenhouse gas emissions (Net Zero carbon footprint) by the target date.

Deep Renovation

A renovation which is in line with the 'energy efficiency first' principle, which focuses on essential building elements and which transforms a building or building unit: (a) before 1 January 2030, into a nearly zero-energy building; (b) from 1 January 2030, into a zero-emission building.

Embodied Carbon

Covers the entire carbon emissions associated with materials and construction processes throughout the whole lifecycle of a building or infrastructure. Embodied carbon therefore includes the following modules (or lifecycle stages of a building) under EN 15978: material extraction (module A1), transport to manufacturer (module A2), manufacturing (module A3), transport to site (module A4), construction (module A5), use phase emissions (module B1, e.g. refrigerant leakage but excluding operational carbon), maintenance (module B2), repair (module B3), replacement (module B4), refurbishment (module B5), deconstruction (module C1), transport to end of life facilities (module C2), processing (module C3), disposal (module C4). Benefits beyond the system boundary (modules D1 – D4) should also be reported separately to modules A-C38.

Energy Performance Certificate (EPC)

A certificate, recognised by a Member State or by a legal person designated by it, which indicates the energy performance of a building or building unit, In Ireland, these are known as Building Energy Rating (BER) Certificate.

Greenhouse Gases (GHG)

In the context of the scope of the built environment only the following GHGs with Global Warming Potentials (GWP) are considered: carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulphur hexafluoride (SF_6)40. Their GWP is quantified in units of carbon dioxide equivalent. A kilogram of carbon dioxide therefore has a GWP of 1 kg CO_2eq41.

Green Lease (Green Clauses in Leases)

A lease between an owner and occupier of commercial building which provides obligations on both parties to minimise adverse environmental impact in areas such as energy, water and waste.

Life-cycle global warming potential or 'life-cycle GWP'

An indicator which quantifies the global warming potential contributions of a building along its full life cycle.

Minimum Energy Performance Standards (MEPS)

Under Art. 2 of Directive (EU) 2024/1275, MEPS mean "rules that require evxisting buildings to meet an energy performance requirement as part of a wide renovation plan for a building stock or at a trigger point on the market (such as sale, rent, donation or change of purpose within the cadastre or land registry), in a period of time or by a specific date, thereby triggering renovation of existing buildings."

Non-residential Building

A building which is mainly used or intended for non-residential purposes. If at least half of the overall useful floor area is used for residential purposes, the building is classified as a residential building [9].

Operational Carbon

Operational Carbon refers to the GHG emissions arising from all energy consumed by an asset in-use during the operational stage of its life cycle.

Renovation Passport

A tailored roadmap for the deep renovation of a specific building in a maximum number of steps that will significantly improve its energy performance.

Residential Building

A room or suite of rooms in a permanent building or a structurally separated part of a building which is designed for all-year habitation by one private household [10].

Split Incentive

Transactions where the benefits do not accrue to the person who pays for the transaction. In the context of building related energy, it refers to the situation where the building owner pays for energy retrofits efficiency upgrades but may not recover savings from reduced energy use that accrue to that occupier.

Traditionally Built

Buildings constructed before 1945. Modern materials and techniques were used widely in the Irish construction industry from around this time onwards. Traditional buildings are often referred to as being' breathable construction. This means that the construction material used can absorb and release moisture.

Zero-emission Buildings

Buildings with a very high energy performance, as determined in accordance with Annex I of the EPBD 2024 Recast, requiring zero or a very low amount of energy, producing zero on-site carbon emissions from fossil fuels and producing zero or a very low amount of operational greenhouse gas emissions, in accordance with Article 11 of the Directive.

[9][10] *For further information on the new requirements relating to residential buildings, please see World Green Building Council's factsheet - Minimum Energy Performance Standards and renovation trajectories in the Energy Performance of Buildings Directive.*

Article 9.1

Part of Article 9 - Minimum energy performance standards for non-residential buildings and trajectories for progressive renovation of the residential building stock

For further details, refer to the full text of Directive (EU) 2024/1275. This should be read in conjuntion of the full Article 9.

Member States shall establish minimum energy performance standards for non-residential buildings which ensure that those buildings do not exceed the specified maximum energy performance threshold, as referred to in the third subparagraph, expressed by a numeric indicator of primary or final energy use in kWh/(m²·y), by the dates specified in the fifth subparagraph.

The maximum energy performance thresholds shall be established on the basis of the non-residential building stock on 1 January 2020, based on available information and, where appropriate, on statistical sampling. Member States shall exclude from the baseline non-residential buildings that they exempt pursuant to paragraph 6.

Each Member State shall set a maximum energy performance threshold to the effect that 16% of its national non-residential building stock is above that threshold (the '16% threshold'). Each Member State shall also set a maximum energy performance threshold to the effect that 26 % of its national non-residential building stock is above that threshold (the '26% threshold'). Member States may set the maximum energy performance thresholds with reference to the national non-residential building stock as a whole or per building type or category of building.

Member States may set the thresholds at a level corresponding to a specific energy performance class, provided that they comply with the third subparagraph.

The minimum energy performance standards shall ensure, at least, that all non-residential buildings are below:

- The 16% threshold from 2030; and
- The 26% threshold from 2033

Compliance of individual non-residential buildings with the thresholds shall be checked on the basis of energy performance certificates or, where appropriate, other available means.

In their roadmaps as referred to in Article 3(1), point (b), Member States shall establish specific timelines for non-residential buildings to comply with lower maximum energy performance thresholds by 2040 and 2050, in line with the pathway for transforming the national building stock into zero-emission buildings.

Member States may establish and publish criteria to exempt individual non-residential buildings, in light of the expected future use of those buildings, in light of serious hardship or in the case of an unfavourable cost-benefit assessment, from requirements in this paragraph. Any such criteria shall be clear, precise and stringent and shall ensure equal treatment between non-residential buildings. When establishing those criteria Member States shall enable the ex-ante assessment of the potential share of non-residential buildings covered and shall avoid a disproportionate number of non-residential buildings from being exempted. Member States shall also report on the criteria as part of their national building renovation plans submitted to the Commission pursuant to Article 3.

Where Member States establish criteria for exemptions pursuant to the eighth subparagraph, they shall achieve equivalent energy performance improvements in other parts of the non-residential building stock.

Where the overall renovation necessary to achieve the energy performance thresholds specified in this paragraph has an unfavourable cost-benefit assessment for a given non-residential building, Member States shall require that, for that given non-residential building, at least those individual renovation measures with a favourable cost-benefit assessment are implemented.

To the extent that the national non-residential building stock, or part of it, is seriously damaged by a natural disaster, a Member State may temporarily adjust the maximum energy performance threshold so that the energy renovation of damaged non-residential buildings replaces the energy renovation of other worst-performing non-residential buildings, whilst ensuring that a similar percentage of the non-residential building stock undergoes energy renovation. In that case, the Member State shall report the adjustment and its projected length in its national building renovation plan.

Useful Resources

Energy Performance of Buildings Directive - Recast

The EPBD decrypted: a treasure chest of opportunities to accelerate building decarbonisation

Minimum Energy Performance Standards and renovation trajectories in the Energy Performance of Buildings Directive - WorldGBC EPBD implementation factsheet

IGBC documents as a basis of common understanding to energy renovation:

- Building Renovation in Ireland - Legislative Developments
- Energy Renovation in Ireland: Main challenges and proposed renovation pathways
- Societal & economic benefits to energy renovation

References

SEAI National Energy Projections 2024

Irish Green Building Council welcomes the passing of the Energy Performance of Buildings Directive (EPBD)

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